



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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May 2, 2011

Ms. Lorna Mauren, P.E.
City of Tacoma
326 East D Street
Tacoma, WA 98421-1801

Re: South Tacoma Channel Seep and Sound Transit D-M Street Project

Dear Ms. Mauren:

In March 2011, Sound Transit requested guidance from Ecology on how to address a groundwater seep found on the D-M Street project site located in the City of Tacoma. A USEPA study, *South Tacoma Channel Seep, Site Inspection Report*, Tacoma, WA (USEPA, March 2011), and more recent sampling by Sound Transit, indicate the seep contains trichloroethylene (TCE) at levels of approximately 10 to 12 parts per billion (ppb).

The *South Tacoma Channel Seep Report* states the seep currently discharges at approximately 20 gallons per minute out of a pipe extending from the south side of a former rail line. It then flows overland for approximately 100 feet and enters Tacoma's stormwater conveyance system and ultimately discharges to the Thea Foss Waterway via outfall number 237B. Sound Transit requested guidance from Ecology and the City on how to address the seep both during construction and post-construction. Options considered included: continued discharge to the stormwater system, redirecting flows to the sanitary sewer system, and treating flows prior to discharge to either system.

Ecology met internally in early April to discuss TCE levels reported for the seep in relation to water quality standards. TCE standards considered include:

- 5 ug/L – USEPA maximum contaminant level for TCE in drinking water
- 2.7 ug/L – National Toxics Rule (NTR) ambient freshwater criterion
- 81 ug/L – NTR ambient marine water criterion
- Ecology staff also conducted a search of the USEPA toxics database. TCE toxicity test results found in this search were generally in the tens of thousands ug/L range for LC50 and the 100 ppb range for sub-lethal effects (note: for contaminants in water ppb is equivalent to ug/L).

The TCE levels reported (10-12 ppb) are above the drinking water maximum contaminant level and the NTR ambient freshwater criterion, below the NTR ambient marine water criterion, and below levels that are toxic to aquatic life. Because the discharge from Tacoma's stormwater system is to marine waters (Thea Foss Waterway), the marine water quality criterion is the

applicable standard for determining compliance with their Phase I Municipal Stormwater Permit. Ecology has determined that the reported TCE levels do not exceed this level.

Ecology informed Sound Transit via email on April 14, 2011, that an acceptable solution for addressing the seep during construction is to isolate the flow and prevent it from comingling with construction stormwater by tight-lining the pipe directly to the existing discharge point into Tacoma's stormwater system.

The purpose of this letter is to express the conditions under which Ecology will accept continued discharge of the seep to the City's stormwater system post-construction of the D-M Street project. Ecology's evaluation of the seep and recommendations in this letter are limited to TCE levels reported to the agency. Because reported TCE levels exceed the maximum contaminant level for drinking water, the City should permanently prevent public access to seep flows. The City should maintain access to the seep discharge in case sampling is needed to assist in efforts to identify and eliminate the source of TCE contamination.

Tacoma's Phase I Municipal Stormwater Permit (Permit) requires efforts that may ultimately identify the source of TCE contamination to the spring. The City should continue to implement the requirements of the Permit, including source control and illicit discharge detection and elimination efforts, in areas discharging to the Thea Foss Waterway. Ecology and USEPA may also conduct future studies related to the seep. The City should cooperate and participate in any future studies as appropriate.

Please contact me at 360-407-7320 or vmcg461@ecy.wa.gov with any questions.

Sincerely,



Vincent McGowan
Municipal Stormwater Permit Manager
Southwest Regional Office
Water Quality Program

cc: Bob Penhale, Ecology NWRO
Marv Colman, Ecology SWRO
Permit File